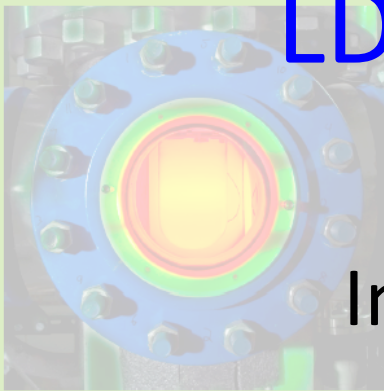




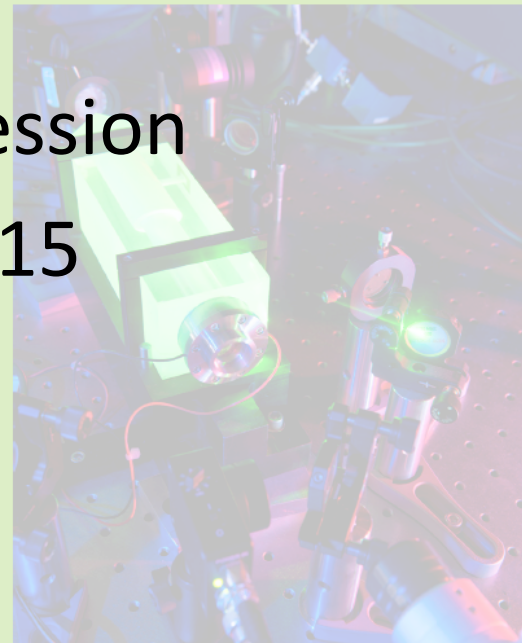
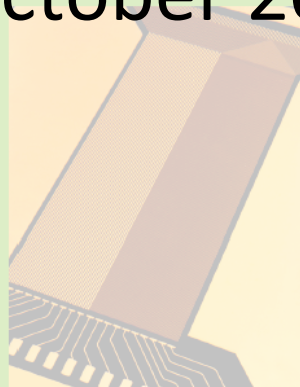
LDRD at Fermilab



Information Session October 2015



William Wester
LDRD Coordinator



Introduction

- The Department of Energy allows national labs to have and administer a “Laboratory Directed Research and Development,” LDRD, Program under DOE Order 413.B
 - Maintain scientific vitality at the laboratory
 - Novel, cutting edge, demonstration, high risk/high reward projects at the forefront of science and technology.
 - Projects must be outside current programmatic activities and relevant to the missions of FNAL and DOE.
 - Maximum duration is 36 months. For FY15, projects are expected to start Jan 2015.

For Fermilab personnel with great ideas ...

LDRD represents a great opportunity to think creatively, to explore a new idea, a new concept, try out a new technique ... work at the forefront of science and technology.

While there are requirements and restrictions, the idea is that the process is as little burdensome as possible.

Your role is to be a “Principal Investigator of a LDRD Project”

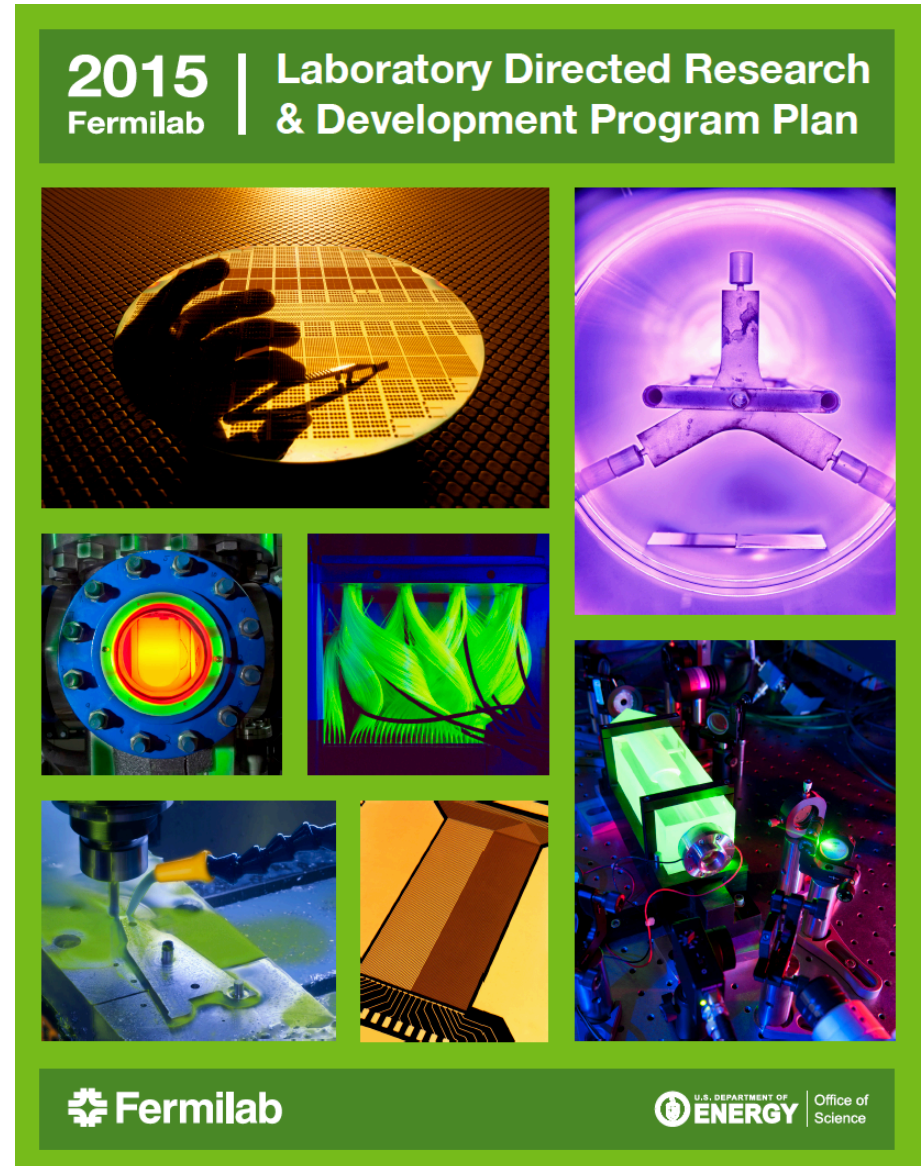
You propose a project, it gets reviewed, ultimately the Laboratory Director approves the project for funding. Your project gets assigned a project / task code and you manage the work plan outlined in your proposal. You obtain results in a deliverable milestone (publication, device, etc.) and complete end-of-project reporting.

LDRD can also be used to support new strategic areas

LDRD Annual Program Plan

An LDRD Advisory committee has met and developed the implementation procedures for Fermilab's LDRD program. These appear as part of a LDRD Annual Program Plan and a set of documents that describe the process.

The Annual LDRD Program Plan for Fermilab has been approved by DOE which has authorized FY2015 LDRD expenditures to not exceed \$3.5M (this includes continuing LDRD projects!)



Call for proposals

no changes

1st step: A one-page Preliminary Proposal

(due Oct 31 for full consideration)

- Brief description of your project with the scope of the work plan and resources required AND sign-off approval from your Supervisor and Division Head
 - Management is aware of your intentions and believes it can accommodate your requested resources
 - LDRD Selection Committee gets a first look at possible proposals and might suggest changes to be compliant with LDRD requirements

Fermilab Laboratory Directed Research and Development, LDRD Preliminary Proposal	
Project Title: Principal Investigator: Co-Investigators (w/institutions):	
Supervisor/Line Management Approval: _____	_____ Date
Lead Division/Sector/Center Approval: _____	_____ Date
Project Summary (~150 words): Project objectives, novelty, relation to mission.	
Project Work Plan (~200 words): Overview description the work to be performed, timescale, and approximate financial/personnel resources required.	
Comments or Questions (optional) . Short description of anything else relevant or if you have any initial questions of the LDRD Selection Committee.	

Preliminary Proposal Process

- Supervisor / Division have a say in whether there is support for you working on an LDRD project
- The LDRD Selection Committee will review the preliminary proposals and make an initial determination on the relative strength of your proposal. Expect feedback by ~Nov 10. With a Full Proposal due Nov 26 including working with your Division's field financial manager on your proposed budget, there is not much time ... but the length and scope of the Full Proposal is meant to be reasonable. This schedule is two weeks longer than FY14 process.
- For FY14, we received 50 Preliminary Proposals (nearly all were very good ideas). We received 29 Full Proposals which proved to be too many. Look for feedback to be such to encourage approximately ~15 Full Proposals.

Call for proposals

2nd step: up to ~6 page full proposal

(due Nov 26 for full consideration)

- Summary and full description of your project with a detailed research/work plan and resources required.
 - Emphasize novel nature, relation to Fermilab's/DOE's mission
 - Detailed research plan with key milestones and ending deliverable
- Budget table to be prepared with assistance of Division's Field Financial Manager (FFM).
 - FTE costs for various job categories
 - Overhead rates for various pieces of the proposal

Title

PI (co-I's)

Project Description

Significance

Research Plan

Future Funding

Budget Table

Qualifications (optional)

(only change)

detailed
budget tables
due Dec 5

Full Proposal Process

- All of the members of the LDRD Selection Committee will evaluate each Full Proposal
- On Dec 12, 2014, each PI of a Full Proposal may (should) make a short presentation to the Selection Committee (no slides) where there is an opportunity to respond to initial questions. Additional questions might follow and require an email response.
- The LDRD Selection Committee will meet and deliberate according to a charge to recommend a list of projects to the Director. In FY14, we presented an ordered list of recommended projects to the Director who made the final decisions.

Criteria for Evaluating LDRD Proposals

WORKSHEET FOR SCORING LDRD PROPOSAL

Proposal Name and/or ID Number	Principal Investigator's Name

Scoring Criteria	Rating (Check One Per Criteria)					Comments/Notes
	1 = Poor	2 = Fair	3 = Good	4 = Very Good	5 = Excellent	
Scientific/Technical Significance						
Innovativeness/Novelty						
Proposer Qualifications						
Proposal Quality						
Likelihood of Success						
Mission Relevance						
Initiative Relevance						
Strategic Fit						
Enduring Capability						
Laboratory Reputation						

Managing a LDRD Project

LDRD Selection Committee recommends LDRD Projects to the Director for approval subject to DOE Fermi site office concurrence.

Work on the LDRD project may begin when project/task code exists.

The PI is responsible for managing the LDRD project

- Cost effective use of funds

- Adhere to ES&H and Quality Assurance and other Lab policies

- Obtain Division approval of Work Plan (safety concerns addressed, etc.)

- Notify LDRD Coordinator of any changes in scope, other issues

- Prepare mid-year review materials for multi-year projects

- Provide management with periodic status reports

- Protect intellectual property

- Culminate the project in a clear deliverable such as a publication

- Prepare required end-of-project reports


Summary and then questions

I would like to thank Nigel for being a champion for establishing LDRD at Fermilab. I personally think that there is tremendous potential within the Fermilab staff to do great things. LDRD allows for those great things to get started.

Web site: ldrd.fnal.gov

Please contact
wester@fnal.gov
with any questions

FY2015 deadlines are
fast approaching; however,
FY2016 LDRD program is
just around the corner too
(April/May)!

**LDRD at Fermilab**
Laboratory Directed Research and Development

Accelerator | Accelerator Physics | Astrophysics | Computing | IARC | Neutrino | Particle Physics | Technical | Theory

About LDRD and FAQs
for Principal Investigators

2015 Annual LDRD
Program Plan

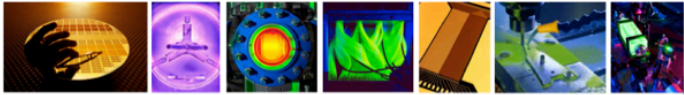
LDRD at DOE

Current and On-going
Projects

Past Awards

LDRD Advisory
Committee

LDRD Selection
Committee



A complete description can be found in the [Annual LDRD Program Plan](#)

A brief description can be found in the [LDRD Information Session](#) slides

Fermilab has instituted a Laboratory Directed Research and Development program as outlined by DOE Order O413.2B in order to support employee initiated proposals that are novel, cutting edge, and explore forefront areas of science and technology. The program will enhance the Laboratory's ability to carry out the mission of DOE and the Laboratory in areas that are outside current programmatic activities but are well-aligned with the strategic goals of the Laboratory.

[The FY2015 Call for Proposals](#)

Status: The FY15 Fermilab Annual LDRD Program plan has been approved (see link above) and outlines the details of the program. The FY15 formal call for proposals has been issued.

Oct 31 2014: Preliminary Proposals Due
Nov 26 2014: Full Proposals Due
Dec 12 2014: Short presentations by the PI to the Selection Committee

- Quick links for perspective Principle Investigators
 - Preliminary Proposal (template [\(.docx.pdf\)](#))
 - Full Proposal (template [\(.docx.pdf\)](#))
 - Budget Table template to be completed with Division Field Financial Manager([.xlsx](#))
 - Reporting requirements for end of project([instructions](#))
- What LDRD can be used to support
 - Advanced study of hypothesis, concepts, and innovative approaches to scientific, technical, or computational problems
 - Experiments, theoretical studies, simulations, and analyses directed toward "proof of principle" or early determination of the utility of new scientific ideas, technical concepts, and devices or research tools
 - Concept creation and preliminary technical analyses of advanced, novel experimental facilities and devices or of facilities for computational science.
- What LDRD is unable to support
 - R&D that is already part of programmatic activity / existing project
 - R&D that requires non-LDRD funds to complete

Fermi National Accelerator Laboratory | Office of Science/U.S. Department of Energy | Managed by Fermi Research Alliance, LLC

Backup

LDRD Program Objectives

DOE Order 413.2B

- Maintain the scientific and technical vitality of the laboratories.
- Enhance the laboratories' ability to address future U.S. DOE/ NNSA missions.
- Foster creativity and stimulate exploration of forefront science and technology.
- Serve as a proving ground for new concepts in research and development.
- Support high-risk, potentially high-value research and development.

LDRD Program Scope

DOE Order 413.2B

- LDRD projects must be in the forefront areas of basic and applied science & technology relevant to DOE missions.
- Normally, LDRD projects will be relatively small and will also include one or more of the following characteristics:
 - Advanced study of hypotheses, concepts, or innovative approaches to scientific, technical, or computational problems
 - Experiments, theoretical studies, simulations, and analyses directed toward “proof of principle” or early determination of the new utility of new scientific ideas, technical concepts and devices, or research tools
 - Concept creation and preliminary technical analyses of advanced, novel experimental facilities/devices or of facilities for computational science.

LDRD Program Requirements

DOE Order 413.2B

- **Length of Projects:** LDRD projects will be limited to a maximum period of performance of 36 months.
 - *Typically, labs require progress reviews before second and third year funding is approved*
- **Funding Level:** Level must not exceed **6%** of a lab's total operating and capital equipment budgets.
- **Appropriate Expenditures:** Projects may be charged the same allowable costs associated with similar R&D activities at the lab, including fully burdened payroll, benefits, materials and supplies, travel to user-facilities, and capital equipment in direct support of a project or support for participation by non-laboratory personnel.
- **Management of Funds:** Funds must be carefully managed to ensure appropriateness and accountability of all charges.

LDRD Program Restrictions

DOE Order 413.2B

- ***LDRD funds will not be used to:***
 - Substitute for or increase funding for any tasks for which a specific limitation has been established by Congress or DOE, or for any specific tasks that are funded by DOE or other users of the laboratory.
 - Fund projects that will require the addition of non-LDRD funds to accomplish the technical goals of the LDRD project.
 - Fund construction design beyond the preliminary phase (e.g., conceptual design, Title I design work, or any similar or more advanced design effort) or fund line-item construction projects, in whole or in part.
 - Fund general purpose capital expenditures with the exception of acquisition of general purpose equipment that is clearly required for the project and is not otherwise readily available from lab inventory.
- ***LDRD is required to be for work that is outside current programmatic activities or projects***